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| 10/540,686      | 01/18/2006  | Anthony Morel        | 348162-982560       | 8985             |

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| EXAMINER |
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PRINCE, JESSICA MARIE

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| ART UNIT | PAPER NUMBER |
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2485

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04/25/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/540,686 | <b>Applicant(s)</b><br>MOREL, ANTHONY |  |
|                              | <b>Examiner</b><br>JESSICA PRINCE    | <b>Art Unit</b><br>2485               |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,9,11,12 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) 7,8,10,13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9, 11-12, 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2011 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04-08-2011</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Acknowledgement of Amendment***

Applicant's amendment filed 04-07-2011 overcomes the following objection(s)/rejection(s):

The objection to the drawings have been withdrawn in view of applicant's amendment.

### ***Response to Arguments***

1. Applicant's arguments filed 04-07-2011 have been fully considered but they are not persuasive.
2. As to applicant's argument that the combination of AAPA and Sugiyama fails to result in the claimed invention, because the reference and differential pictures of Sugiyama are directed to the moving picture video, not to dynamic graphic content that includes a plurality of dynamic elements each of which having a plurality of appearance states leading to a plurality of views as recited by claim 1.
3. The examiner respectfully disagrees. AAPA discloses the pre-processing of dynamic graphic content and digital video where the graphic content comprises at least 2 pages with multiple views with dynamic elements, fig. 3. AAPA does not disclose the specifics that the dynamic elements are a reference picture and a differential picture. However, giving the broadest most reasonable interpretation, a dynamic element is nothing more than a picture. Sugiyama discloses to encode a dynamic elements (pictures) as reference and difference pictures (fig. 1 and [0003], [0020], [0079-0080]. Since, AAPA discloses to encode a view that has is composed of a plurality of dynamic

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elements (pictures) with different states, and Sugiyama discloses encoding a plurality of pictures (dynamic elements) as reference and difference pictures, the combination of AAPA and Sugiyama now discloses to encode a view that is composed of plurality of dynamic elements (pictures) where the dynamic elements (pictures) are reference pictures (first state) and difference pictures (state other than the first state). In response to applicant's arguments, the recitation "dynamic graphic content that includes a plurality of dynamic elements each of which having a plurality of appearance states leading to a plurality of views" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

4. As to applicant's argument that there is no suggestion in either AAPA or Sugiyama to use reference and differential picture encoding of dynamic graphic content.

5. In response to applicant's argument that no suggestion in either AAPA or Sugiyama to use reference and differential picture encoding of dynamic graphic content, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

6. As to applicant's argument that it is believed that the present inventor was the first to conceive of using multiplexed reference and differential pictures encoding as claimed for dynamic graphic content with dynamic elements each having appearance states leading to a plurality of views. It is respectfully submitted that neither cited reference suggest such a solution for dynamic graphic content as claimed.

7. The examiner respectfully disagrees. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

8. As to applicant's argument that claims 4, 15, and 7 depend from claims 1 or 9, and are therefore, considered allowable for the reasons set forth above in part 2. The addition of official notice fails to cure the deficiencies of AAPA and Sugiyama.

9. The examiner respectfully disagrees. Claims 4, 15, and 17 are also not considered allowable for the reasons set forth above explaining why claims 1 and 9 are not allowable. In addition, with respect to claims 4, 15, and 17, the applicant did not traverse the examiners assertion of official notice of applicant's traverse is not adequate; the examiner must clearly indicate in the next office action that the common knowledge or well-known in the art statement is taken to be admitted prior art. In this instance, the applicant did not adequately traverse the examiner's assertion of official notice. Because the applicant did not specifically point out the supposed errors in the examiner's action, which would include stating "why" the noticed fact is not considered

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to be common knowledge or well-known in the art [See 37 CFR 1.111(b). See also Chevenard, 139 F.2d at 713, 60 USPQ at 241].

10. Secondly, since the Applicant's reference to the Examiner's assertion was inadequate for the reason above, the Examiner's common knowledge or well-known in the art statements are taken to be admitted prior art because Applicant either failed to traverse the Examiner's assertion of official notice of that the traverse was inadequate (MPEP 2144.03).

11. As to applicant's argument that claim 5 depends from claim 1, and is therefore consider allowable for the reasons set forth above.

12. The examiner respectfully disagrees. Claim 5 is also not considered allowable for the reasons set forth above explaining why claim 1 is not allowable.

### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
15. Claims 1-3,6, 9, 11-12, 16, 18 rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA (Applicants Admitted Prior Art) in view of Sugiyama et al., US-2001/0026589.
16. Re **claim 1**, AAPA teaches a method for encoding dynamic graphic content, said dynamic graphic content including a plurality of dynamic elements, each of which has a plurality of appearance states, the plurality of states of the plurality of elements lead to a plurality of view, said method comprising steps of: encoding a view (view 1) in all of the plurality of dynamic elements being in a first state ([0006]and fig. 3) encoding remaining views (view Mi) in which at least one of the plurality of dynamic elements being in a state other than the first state ([0006], multiplexing (fig. 3 element multiplex).AAPA is silent in regards to a reference picture; differential pictures with regards to said reference picture, to form a differential picture; and multiplexing said reference picture and said differential picture sequence together, and providing the resulting signals in video format, as claimed.
17. It should be noted that AAPA does disclose to multiplex the plurality of encoded image views (fig. 3) and the output is a digital video signal (fig. 3).
18. However, Sugiyama teaches (the present invention provides a coding apparatus for coding first pictures, that are set at a predetermined interval to be used a reference pictures for inter-picture prediction of an incoming moving picture, [0020], [0079-0080] and fig. 1, P(I)); encoding a differential pictures with regards to said reference picture, to form a differential picture sequence (B picture, fig. 1. It should be noted that B pictures

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are coded using the difference the picture and the reference frame, [0003], [0020] and fig. 1); and multiplexing (fig. 1 element 13) said reference picture and said differential picture sequence picture together to produce resulting signals, (a bitstream generated by the variable-length encoder 20 and also a picture rate set by the picture rate setter 15 is multiplexed by the multiplexer 13 with a P(I) picture bitstream generated by the variable length encoder 6, and output through an output terminal, [0090], [0020] and fig. 1 elements 8, 20, 14 and 6) , and providing the resulting signals in video format (output bitstream, fig. 1 element 14).

19. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for providing efficient coding of moving pictures.

20. Regarding **claim 2**, AAPA (modified by Sugiyama as a whole teaches everything as claimed above, see claim 1. AAPA is silent in regards to the method of claim1, wherein said method implemented in the MPEG encoding scheme.

21. However, Sugiyama teaches where said method implemented in the MPEG encoding scheme (fig. 1 element ]).

22. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for providing efficient coding of moving pictures.

23. Regarding **claim 3**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 2. AAPA is silent in regards to wherein said reference picture is an intra-picture.



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24. However, Sugiyama teaches the method of claim 2, wherein said reference picture is an intra-picture (Sugiyama teaches a first encoder for to encode the first pictures by intra-picture coding, [0020] and fig. 1 element 2 P(I)) said differential pictures are predicted-pictures (Sugiyama discloses where B-pictures are (bidirectionally predictive coded pictures) are also compressed by coding the differences the pictures and reference preceding or upcoming I- or P-pictures, [0004] and Fig. 1).

25. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for providing efficient coding of moving picture.

26. Regarding **claim 6**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 1. AAPA is silent in regards to a method for decoding video signals resulted from the encoding method of claim 1, comprising steps of: decoding said reference pictures; decoding the differential pictures corresponding to the state of dynamic elements that have changed with respect to said reference pictures.

27. However, Sugiyama teaches a method for decoding video signals (fig. 4) resulted from the encoding (bitstream in, fig. 4) method of claim 1, comprising steps of: 1) decoding said reference picture (Sugiyama teaches where the present invention provides a decoding method of decoding a multiplexed bitstream to which a first bitstream of coded fist pictures that are set at a predetermined interval, to be used a reference pictures for inter-picture prediction of moving pictures to be coded, [0025],

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and fig. 4); 2) decoding the differential pictures corresponding to the state of dynamic elements that have changed with respect to said reference picture (a second bitstream of coded second pictures different from the first pictures, coded by inter-picture prediction and decimated in accordance with a coding picture rate and data indicating the picture rate have been multiplexed. The multiplexed bitstream is decoded, thus reproducing moving picture, [0025]).

28. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for efficient coding of moving pictures.

29. Regarding **claim 9**, which recites the encoding device corresponding to the encoding method of claim 1, thus the rejection and analysis made for claim 1 also applies here.

30. Regarding **claim 11**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 9. In addition, AAPA teaches a broadcasting system comprising the graphic encoding device of claim 9 (fig. 1 and fig. 9).

31. Regarding **claim 12**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 9. In addition, AAPA teaches an apparatus for offering video signals comprising the graphic encoding device of claim 9 (see fig. 1. and 3).

32. Regarding **claim 16**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 1. AAPA is silent in regards to the method of claim 1 further comprising storing the view in a picture memory.

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33. However, Sugiyama teaches the method of claim 1 further comprising storing the view in a picture memory (Sugiyama teaches the B-picture moving-picture video signal has been stored in the picture memory until completion of coding of the preceding P(I) pictures, [0087] and fig. 4 element 8, picture memory. The examiner interprets a view to be a picture).

34. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for efficient coding of moving pictures.

35. Regarding **claim 18**, (AAPA modified by Sugiyama) as a whole teaches everything as claimed above, see claim 9. AAPA is silent in regards to the graphics encoding device of claim 9, further comprising a picture memory that stores the view.

36. However, teaches Sugiyama teaches the graphics encoding device of claim 9 further comprising a picture memory that stores the view (Sugiyama teaches the B-picture moving-picture video signal has been stored in the picture memory until completion of coding of the preceding P(I) pictures, [0087] and fig. 4 element 8, picture memory).

37. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for efficient coding of moving pictures.

38.

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39. Claims 4, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA (Applicants Admitted Prior Art) in view of Sugiyama et al., US-2001/0026589 and further in view of Official Notice (Well Known Prior Art).

40. Regarding **claim** 4, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 1. AAPA is silent in regards to the method of claim 1, wherein said reference picture is cycled no less than every predetermined time period so that the bit rate of the resulting signals is reduced by a pre-selected factor.

41. However, Official Notice is taken that both the concept and advantage for providing the limitation as claimed is notoriously well known and expected in the art, thus it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate with AAPA (modified by Sugiyama) for providing improved image coding.

42. Regarding **claim** 15, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 1. AAPA does not explicitly disclose that the picture memory is used for storing a reference picture.

43. However, Official Notice is taken that the concept and benefit for providing the limitation is notoriously well known and expected in the art. It would have been obvious to one of ordinary skill in the art to incorporate storing the reference picture in a memory for use with motion estimation.

44. Regarding **claim** 17, which recites the encoding device corresponding to the encoding method of claim 1, thus the rejection and analysis made for claim 1 also applies here.

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45. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA (Applicants Admitted Prior Art) in view of Sugiyama et al., US-2001/0026589 and further in view of Lin et al., US-2003/0159152,

46. Regarding **claim 5**, Sugiyama is silent in regards to the method of claim 1, further comprising a step of adding pictures indicating "no changes with regards to previous picture" into said differential picture sequence so as to reduce the bit-rate.

47. However, Lin teaches a step of adding pictures indicating "no changes with regards to previous picture" into said differential picture sequence as to reduce the bit-rate (Lin discloses to illustrate an example of the insertion of dummy pictures in a trick mode video signal, attention is once again directed to the GOP 400 in Fig. 4. If all of the B pictures are skipped and pictures P.sub.14 and P.sub.11 are skipped (a playback speed of 5.times), then any number of dummy pictures can be inserted into the trick mode video signal to help lower the bit rate, [0033].

48. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Lin with AAPA (modified by Sugiyama) for providing improved image quality without exceeding a maximum bit rate limit.

### ***Conclusion***

49. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA PRINCE whose telephone number is (571)270-1821. The examiner can normally be reached on 7:30-5:00 EST Monday-Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JESSICA PRINCE/  
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/Jayanti K. Patel/  
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April 21, 2011